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ABSTRACT

The purpose of this module cluster is to enable students to demonstrate that they can plan for changes in the academic behavior of their elementary school pupils and then change the behavior. The cluster is intended for use after the completion of normal college entrance competencies, liberal arts requirements, practicum experience, methods courses, and one of the other module clusters. (DDO)

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Module Cluster: TTP - 003.00 (GSC)

Modifying Academic Behavior

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Department of Elementary Education

SP 007 915

State of New Jersey
GLASSBORO STATE COLLEGE
GLASSBORO, NEW JERSEY 08028

August 6, 1973

Dear Colleague:

Our involvement in the Camden Teacher Corps Project has resulted in the development of several module clusters. The clusters are the primary mode of instruction in this competency-based teacher education program. The program follows the guidelines set forth by the U.S. Office of Education, Department of H E W.

Many of these modules are based on a list of teacher competencies which has been developed by members of the Elementary Education Department. The list represents the core competencies and is intended to be representative of a behavioral approach to teaching. These competencies comprise the nucleus of Glassboro's teacher education program.

All these modules specify competencies and describe a scenario for self-paced learning in a field oriented setting. Clearly this is a process which is in marked contrast to the accumulation of credits acquired primarily in college classrooms.

We invite your use, criticism, and refinement of these modules as a means of joining us in creating a more generative climate for developing competent, open, and hopefully healthy-minded teachers.

Sincerely yours,

F. Goodfellow

Frank Goodfellow
IHE Coordinator-Camden Teacher
Corps Project
Chairperson, Elementary Education Dept.

Reference System Designation:	TTP - 003.00 (GSC)
Program:	Seventh Cycle Teacher Corps Program at Glassboro State College, Glassboro, New Jersey 08028
Component:	Teaching Theories and Practices
Module Cluster:	Modifying Academic Behavior
Developer:	Dr. George Brent
Date of Development:	Summer, 1973

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Instructions for Using a Glassboro State College Module Cluster

A Glassboro State College Module Cluster aims at arranging a learning experience in a very specific way. The goal of the cluster is to facilitate successful, self-paced learning for the student.

1. Glassboro State College module clusters are intended to be used by students with the cooperation of an instructor. The instructor will give a brief explanation about the particular module cluster. This should include the rationale for the cluster as well as general arrangement for completing the module.

2. After the initial meeting with the instructor, the student can begin work on the module cluster. Within a cluster the modules are presented sequentially.

3. When a student begins to study a module, he should first read the Objective, Prerequisite, and Preassessment sections A number of alternatives are then available. For example the student may decide after reading the preassessment procedures that he is competent in that area. He may then complete the entire preassessment and discuss the results with the instructor. The instructor will then be able to verify the student's competence.

4. A second choice is possible if the student feels unsure of the material as presented in the preassessment. He can then skip the preassessment and complete the module step by step, including the post-assessment procedures.

5. The instructor will consult with the student after the post-assessment is completed. At this point if the student and instructor feel the competency involved has been demonstrated, the student will move to the next module in the cluster. If the post-assessment reveals some deficiency, remediation will be assigned and another form of post-assessment will then be used.

TTP - 003.00 (GSC) Modifying Academic Behavior

General Objectives of the Module Cluster

The purpose of this module cluster is to enable students to demonstrate that they can plan for changes in the academic behavior of their pupils and then change the behavior.

Prerequisites to the Module Cluster

1. Completion of normal college entrance competencies.
2. Completion of all normal college liberal arts requirements.
3. Completion of a practicum experience.
4. Completion of all methods courses.
5. Completion of TTP - 001a.00 (GSC).

Modules Within the Module Cluster

This module cluster contains ten modules. Each module is identical in format and therefore only one module is completely illustrated. The modules differ in the complexity of setting they call for and the content area to be taught. These differences are described below.

Sequence I

Setting - Setting factors should be chosen from sections I-A, II-A, and III-A of appendix A. One factor should be chosen from each section. The combination of levels 1.3, 2.3, and 3.3 must be achieved before this sequence is considered complete.

Content Area (all areas must be completed)

TTP - 003.01 - Arithmetic
TTP - 003.02 - Language Arts
TTP - 003.03 - Reading
TTP - 003.04 - Science
TTP - 003.05 - Social Studies

Sequence II

Setting - Setting factors should be chosen from sections I-B, II-B and III-B of appendix A. One factor should be chosen from each section. The combination of levels 1.6, 2.5, and 3.4 must be achieved before this sequence is considered complete.

Content Area (all areas must be completed)

TTP - 003.06 - Arithmetic
TTP - 003.07 - Language Arts
TTP - 003.08 - Reading
TTP - 003.09 - Science
TTP - 003.10 - Social Studies

TTP - 003.01 (GSC) - Arithmetic

Objectives

The student will be able to prepare and implement a teaching sequence in arithmetic for a concept that is consistent with current and authoritative descriptions by:

1. Establishing instructional objectives for pupils.
2. Establishing enabling objectives which are consistent with the instructional objectives and sequentially developed.
3. Selecting materials and procedures which are consistent with the established objectives.
4. Applying the teaching plans.
5. Applying reinforcers for pupil achievement.
6. Maintaining continuous measurement of pupil progress.
7. Modifying materials and/or procedures if data indicate changes are needed.

Success is determined by the criteria established on the Assessment Worksheets. (Figure 2 and Figure 3 - see appendix B for explanation).

Prerequisite

1. Those stated for the module cluster. (Sequence I must be completed before sequence II is started.)

Pre-assessment

Prior to implementing the teaching sequence, students must complete the Teaching Analysis Worksheet (Figure 1 - see appendix C for explanation.) and the Assessment Worksheets.

Instructional Activities

1. Review TTP - 001a.00 (GSC).
2. Read appendix D.
3. Implement teaching plans.

Post-assessment

Verified data will be submitted at the projected completion date indicating the status of the academic behavior in relation to the stated instructional objective.

Remediation

1. Knowledge errors will be remediated by recycling through appropriate modules.

2. Difficulties in implementation will be remediated by redoing a similar teaching sequence in a situation that is lower on the hierarchy, A Sequence For Field Experience (Appendix A.)

Figure 1

Teaching Analysis Worksheet

Instructional Objective _____

A. Stimulus _____

B. Response _____

C. Reinforcing Contingency _____

D. Consequence _____

Figure 2

Assessment Worksheet I

Instructional Objective _____

_____

_____

_____

A. Field Setting _____

_____

_____

_____

B. Criteria _____

_____

_____

_____

C. Verification Procedures _____

_____

_____

_____

D. Field Experience Hierarchy

Number of lessons _____

Number of pupils _____

Sequential context _____

Figure 3

Assessment Worksheet II

E. Enabling Objectives

1.

2.

3.

4.

APPENDIX A

* A Sequence for Field Experiences

Field experiences are listed below in a hierarchical order. It is assumed that a student should proceed in order from the lowest to the highest level.

The list pertains to both practicum and student teaching experiences. In practicum, after an observational period, the student should have experience at each level for a few days only and be closely supervised.

Student teaching should include lengthy experiences and involve a decreasing amount of supervision. Self-supervision should gradually increase.

I. The number of lessons taught per day.

A. 1.1 Less than one per day.
1.2 One lesson per day.
1.3 Two lessons per day.

B. 1.4 Three lessons per day.
1.5 All except one or two lessons per day.
1.6 All lessons per day.

II. The number of pupils taught per lesson.

A. 2.1 One pupil per lesson.
2.2 One intraclass group per lesson.
2.3 One whole class per lesson.

B. 2.4 Two or more intraclass groups per lesson.
2.5 Individualized instruction.

III. The sequential context of the lesson taught.

A. 3.1 A discrete, one-shot lesson.
3.2 A lesson in a unit sequence.
3.3 Several lessons in a unit sequence

B. 3.4 A complete unit

* Adapted from "A Sequence For The Practicum" by George Lamb.

Appendix B

Assessment Worksheets I and II

Assessment worksheet I includes the instructional objective, the field setting, the criteria, the verification procedures, and the field experience hierarchy. Objectives must be demonstrated at certain levels reasonable within unique settings. Since the setting and criterion will be different for each intern, the worksheet categories are left undefined. Worksheet II includes the enabling objectives listed in sequential order.

In training programs, the worksheet will be completed by a team consisting of the college supervisor, the classroom teacher, the school supervisor, and the intern. Team consensus will be used to define the four worksheet categories.

An example of a completed set of worksheets follows. As can be seen, the criteria for achieving an objective are described. In addition, responsibility for verification of data is assigned.

Assessment Worksheet

Instructional Objective Given six fifth grade pupils who have not mastered their multiplication facts, the pupils will be able to master all the facts (1-10) X (1-10) and be able to complete them on a paper and pencil test at a rate of 30 per minute.

A. Field Setting Classroom arithmetic group - 9-10 a.m. daily

B. Criteria 90% accuracy by at least four pupils within 4 weeks

C. Verification procedures Cooperating teacher will monitor initial and final assessment.

D. Field Experience Hierarchy

Number of lessons 1.2

Number of pupils 2.1

Sequential context 3.3

Assessment Worksheet II

E. Enabling Objectives

1. Given a paper and pencil test on the multiplication facts that the pupil "knows", he will be able to complete the test accurately at a speed of 30 per minute.

2. Given a paper and pencil test on a "new" multiplication fact and his "known" facts, the student will be able to complete the test accurately.

3. Given a paper and pencil test on a "new" multiplication fact and his "known" facts, the student will be able to complete the test accurately at a speed of 30 per minute.

4. Objectives #2 and #3 are repeated until all the multiplication facts are known.

Appendix C

Teaching Analysis Worksheet

In the Glassboro State College list of teacher competencies, the inclustion of the section on learning theory was based on the premise that teaching practices guided by theories are preferable to those chosen on a subjective basis. To be consistent with this premise, assessment of teacher instructional competency must start with a knowledge component. The assessment procedures illustrated below are based on operant learning theory. Other theories and their related assessment procedures may be substituted for the model presented below.

The example given on the following page pertains to arithmetic. In describing the instructional situation, the teacher must be able to describe the components assumed to be involved in a single operant behavior unit. The components include (1) stimulus (2) response (3) reinforcing contingency, and (4) consequence or reinforcement.

Teaching Analysis Worksheet

Instructional Objective The student will be able to complete any random selection of addition problems with one numeral in each addend with 95% accuracy.

1. Stimulus Addition problems on worksheet.

2. Response Written answers.

3. Reinforcing contingency Correct answer is shown after every problem is done (possible 1-1 contingency) and one token earned after every 5 correct answers (possible 5-1 contingency).

4. Consequence Correct answers shown immediately and a token for each correct answer given at the end of the class. Each token is worth one minute of free time.

Appendix D

Maintaining Continuous Measurement of Pupil Progress

Continuous measurement is defined in this paper as daily measuring and graphing the academic behavior of interest. It is this data which indicates whether teaching is effective or ineffective.

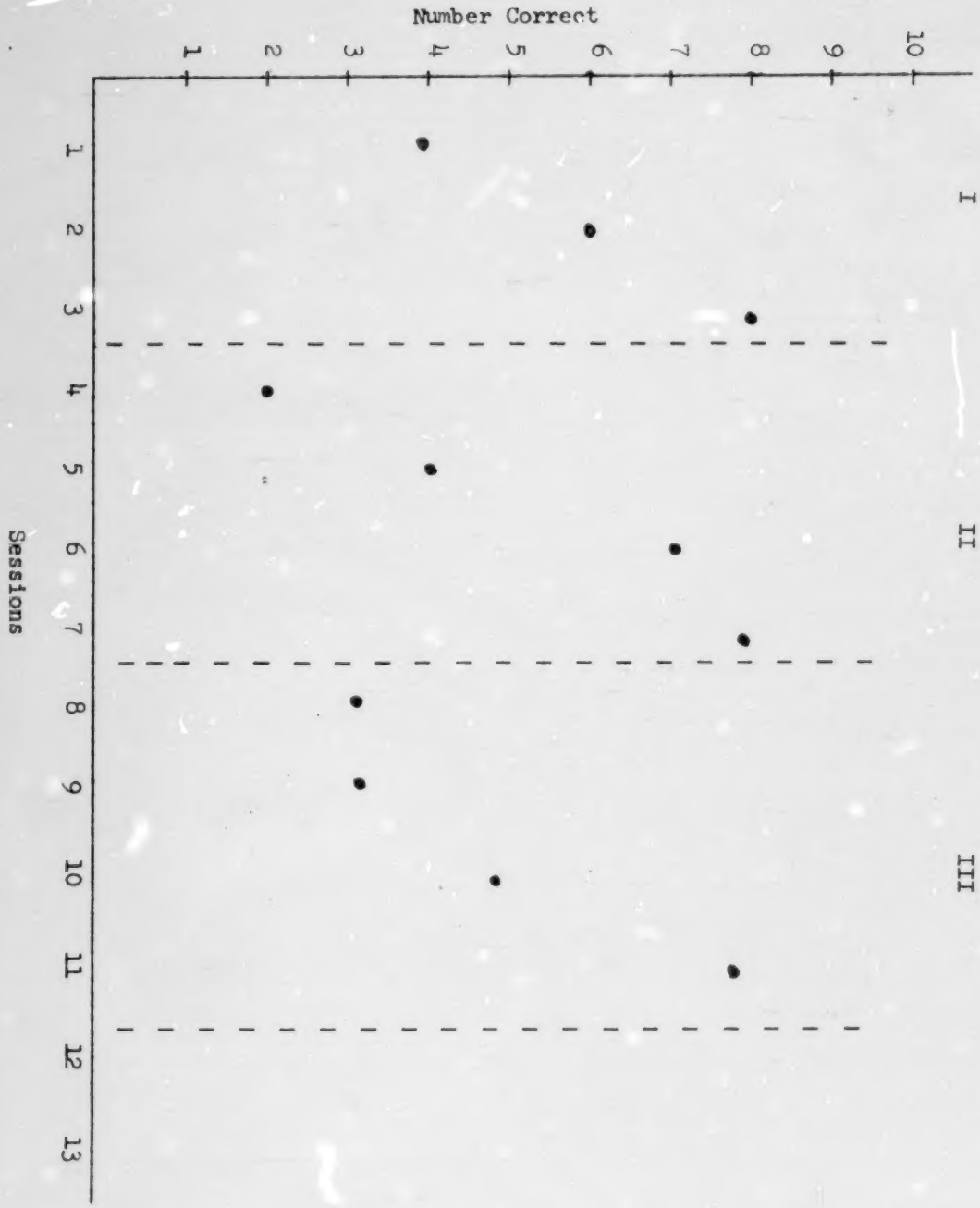
In the teaching situation illustrated on the following pages, there is a single instructional objective and several enabling objectives identified. Decisions must be made on how to daily measure the relevant objective and on how to graph the data.

In the example given (figure 1) the number of correct problems will be recorded for each session. At the end of each session, a paper and pencil test will be presented. The problems included will pertain to the relevant objective and be randomly chosen. Each test will contain ten problems.

The data will be presented on a standard operant graph. Since the enabling objectives require different amounts of work per problem, this will be indicated on the graphs by labeling the sections and using a broken vertical line to separate them. Although graphs usually display one type of behavior only, the inclusion of several types of behavior (the sequentially developed enabling objectives) will give a clear picture on the progress towards the instructional objective.

In addition to the daily measurement, a second procedure is suggested. A comprehensive test (figure 2) should be given previous to instruction and then an alternate form given after each enabling objective is met. The test would include sections from each enabling objective and the instructional objective. The results of the test would indicate what effect the completion of an enabling objective has on the succeeding objectives.

Figure 1



(80% correct is assumed to be the mastery level)

Figure 2

I.	2 +3	7 +8	1 +8	9 +7	7 +5
	8 +5	7 +9	9 +8	4 +4	6 +6

SCORE: _____

II.	21 +33	45 +11	61 +24	49 +10	81 +12
	45 +33	80 +17	22 +55	10 +70	52 +27

SCORE: _____

III.	75 +18	77 +16	75 +18	66 +27	18 +19
	47 +36	38 +47	29 +53	36 +25	78 +12

SCORE: _____

Figure 3

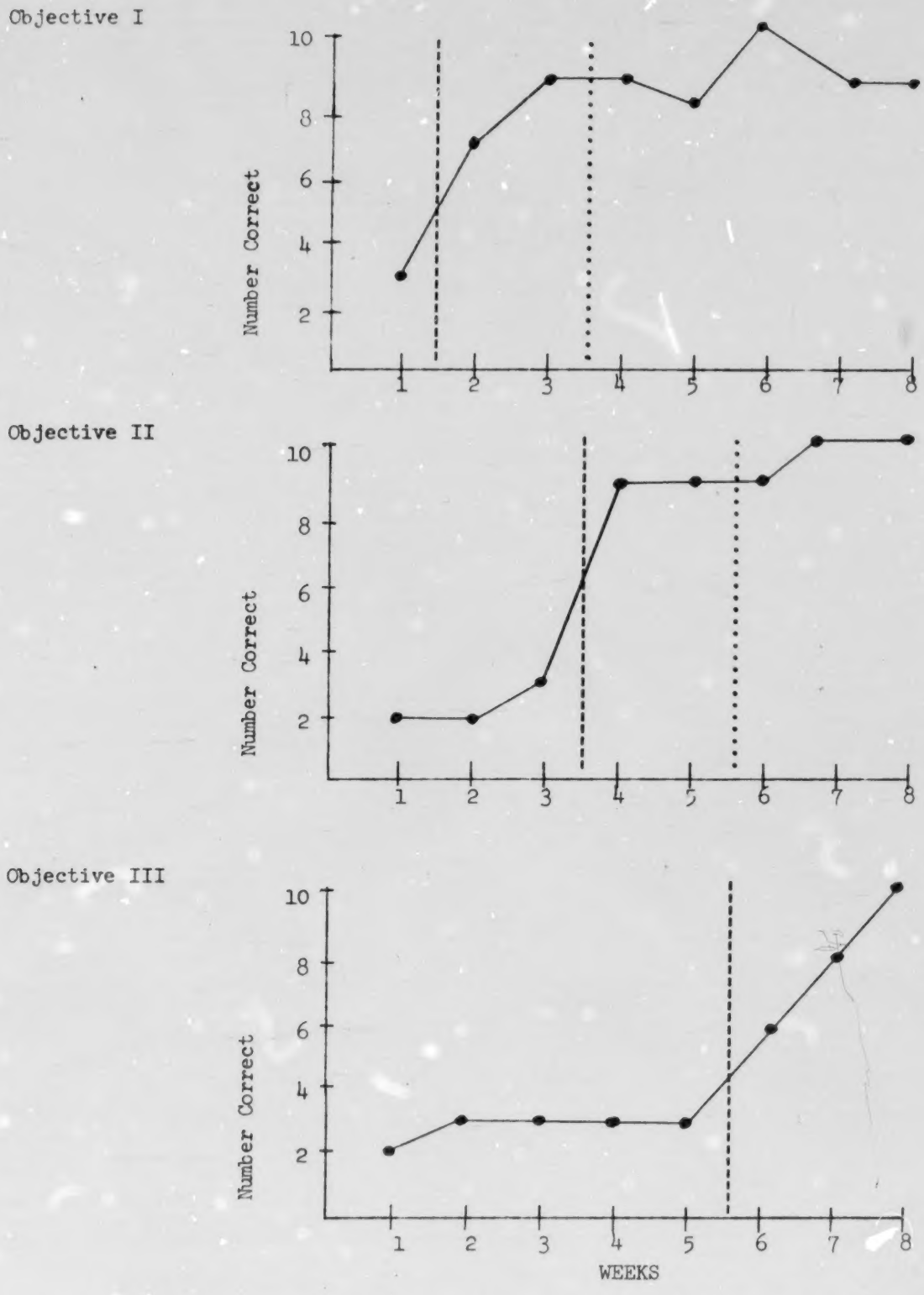


Fig. 3. Average scores on each subsection of the achievement test. Broken line indicates introduction of teaching package for that subsection. Dotted line indicates withdrawal of teaching package for that subsection.

Check-off Sheet for Modules in TTP - 003.00 (GSC) *

Modules	Date	Instructor Signature
.01	_____	_____
.02	_____	_____
.03	_____	_____
.04	_____	_____
.05	_____	_____
.06	_____	_____
.07	_____	_____
.08	_____	_____
.09	_____	_____
.10	_____	_____

Student Signature: _____

* To be completed in duplicate

About The College

Located in South Jersey, Glassboro State College is just 20 miles southeast of Philadelphia and Camden. Twenty-five buildings fill the 200 acres of this co-educational college, which has 6,000 full-time and 6,000 part-time students.

GSC offers bachelor's degrees in 3 major areas: professional studies, arts and sciences and fine and performing arts.

In professional studies we offer teaching degrees in areas ranging from elementary through high school.

You can major in one of 15 programs in the arts and sciences, including communications, journalism, law/justice, political science, chemistry and administrative studies (accounting, marketing, management).

In fine and performing arts we offer degrees in art, music and speech and theatre.

GSC also offers an M.A. degree in 20 areas of teacher education.